AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A method for producing an optically active 1,4-benzodioxane derivative represented by general formula (1):

(where * represents an asymmetric center), the method comprising:

a first step of allowing catechol represented by formula (2):

to react with an optically active 3-halogeno-1,2-propanediol represented by general formula (3):

(where X represents halogen atom; and * is the same as above), or an optically active glycidol represented by formula (4):

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(where * is the same as above), in a solvent in the presence of a base, to yield an optically active triol compound represented by formula (5):

(where * is the same as above);

a second step of allowing the resulting compound to react with a sulfonylating agent in the presence of a tertiary amine to form an optically active trisulfonate compound represented by general formula (6):

$$OSO_2R$$

$$OSO_2R$$

$$OSO_2R$$

$$OSO_2R$$
(6)

(where R represents an alkyl group having 1 to 12 carbon atoms or a phenyl group unsubstituted or substituted with a group having 1 to 12 carbon atoms; and * is the same as above); and

a third step of treating the resulting optically active trisulfonate compound with a base in a protic solvent or a mixed solvent of a protic solvent and an aprotic solvent to cause cyclization.

- 2. (original): The method for producing an optically active 1,4-benzodioxane derivative according to Claim 1, wherein X represents a chlorine atom.
- 3. (currently amended): The method for producing an optically active 1,4-benzodioxane derivative according to Claim 1 and 2, wherein, in the first step, an alkali metal hydroxide is used as the base.
- 4. (currently amended): The method for producing an optically active 1,4-benzodioxane derivative according to Claims 1 to 3 Claim 1, wherein, in the first step, water is used as the solvent.
- 5. (currently amended): The method for producing an optically active 1,4-benzodioxane derivative according to any one of Claims 1 to 4Claim 1, wherein, in the second step, the sulfonylating agent is arylsulfonyl chloride containing 6 to 12 carbon atoms or alkylsulfonyl chloride containing 1 to 12 carbon atoms.
- 6. (currently amended): The method for producing an optically active 1,4-benzodioxane derivative according to Claims 1 to 4Claim 1, wherein, in the second step, the sulfonylating agent is p-toluenesulfonyl chloride.

- 7. (currently amended): The method for producing an optically active 1,4-benzodioxane derivative according to any one of Claims 1-to-6Claim 1, wherein, in the second step, a mixed amine containing triethylamine and N,N,N,N-tetramethyl-1,6-hexanediamine is used as the tertiary amine.
- 8. (currently amended): The method for producing an optically active 1,4-benzodioxane derivative according to any one of Claims 1 to 7Claim 1, wherein, in the third step, sodium alkoxide containing 1 to 4 carbon atoms is used as the base.
- 9. (original): The method for producing an optically active 1,4-benzodioxane derivative according to Claim 8, wherein the sodium alkoxide is sodium methoxide.
- 10. (currently amended): The method for producing an optically active 1,4-benzodioxane derivative according to Claims 1 to 9Claim 1, wherein, in the third step, a mixed solvent of an alcohol containing 1 to 4 carbon atoms and tetrahydrofuran is used as the mixed solvent of a protic solvent and an aprotic solvent.
- 11. (original): The method for producing an optically active 1,4-benzodioxane derivative according to Claim 10, wherein the mixed solvent of a protic solvent and an aprotic solvent is a mixed solvent of methanol and tetrahydrofuran.

- 12. (currently amended): The method for producing an optically active 1,4-benzodioxane derivative according to Claims 1 to 11Claim 1, wherein the optically active 3-halogeno-1,3-propanediol has (R) configuration.
- 13. (original): A method for producing an optically active triol compound represented by formula (5):

(where * represents an asymmetric center), the method 15 comprising a step of: allowing catechol represented by formula (2):

to react with an optically active 3-halogeno-1,2-propanediol represented by general formula (3):

(where X represents a halogen atom; and * is the same as 5 above), or an optically active glycidol represented by formula (4):

(where * is the same as above), in a solvent in the presence of a base.

- 14. (original): The method according to Claim 13, wherein sodium hydroxide is used as the base.
- 15. (currently amended): The method according to Claim 13 and 14, wherein water is used as the solvent.
- 16. (currently amended): The method according to Claims 13 to 15 Claim 13, wherein X represents a chlorine atom.
- 17. (original): A method for producing an optically active trisulfonate compound represented by general formula (6):

$$OSO_2R$$

$$OSO_2R$$

$$OSO_2R$$

$$OSO_2R$$
(6)

(where R represents an alkyl group having 1 to 12 carbon atoms or a phenyl group unsubstituted or substituted with a group having 1 to 12 carbon atoms; and * is the same as above), the method comprising a step of:

allowing an optically active triol compound represented by general formula (5):

to react with a sulfonylating agent in the presence of a tertiary amine.

- 18. (original): The method according to Claim 17, wherein the sulfonylating agent is arylsulfonyl chloride containing 6 to 12 carbon atoms or alkylsulfonyl chloride containing 1 to 12 carbon atoms.
- 19. (original): The method according to Claim 18, wherein the sulfonylating agent is *p*-toluenesulfonyl chloride.
- 20. (currently amended): The method according to any one of Claims 17-to-19Claim 17, wherein a mixed amine of triethylamine and N,N,N,N-tetramethyl-1,6-hexanediamine is used as the tertiary amine.
- 21. (original): A method for producing an optically active 1,4-benzodioxane derivative represented by formula (1):

(where * represents an asymmetric center), the method comprising a step of:

treating an optically active trisulfonate compound represented by general formula (6):

$$OSO_2R$$

$$OSO_2R$$

$$OSO_2R$$

$$OSO_2R$$
(6)

(where * is the same as above), with a base in a protic solvent or a mixed solvent of a protic solvent and an aprotic solvent to cause cyclization.

- 22. (original): The method according to Claim 21, wherein sodium alkoxide containing 1 to 4 carbon atoms is used as the base.
- 23. (original): The method according to Claim 21, wherein the base is sodium methoxide.
- 24. (currently amended): The method according to Claims 21 to 23Claim 21, wherein a mixed solvent of an alcohol containing 1 to 4 carbon atoms and tetrahydrofuran is used as the mixed solvent of a protic solvent and an aprotic solvent.
- 25. (currently amended): The method according to Claims 21-to 23Claim 21, wherein a mixed solvent of methanol and tetrahydrofuran is used as the mixed solvent of a protic solvent and an aprotic solvent.

26. (original): An optically active trisulfonate derivative represented by general formula (6):

$$OSO_2R$$

$$OSO_2R$$

$$OSO_2R$$

$$OSO_2R$$
(6)

(where R represents an alkyl group having 1 to 12 carbon atoms or a phenyl group unsubstituted or substituted with a group having 1 to 12 carbon atoms).

27. (original): The derivative according to Claim 26, wherein R represents p-tolyl.